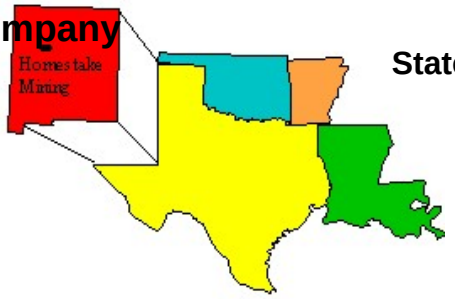
Homestake Mining Company
Grants, New Mexico

EPA ID# NMD007860935
Site ID: 0600816



EPA Region 6
State Congressional District: 03
Contact: Sai Appaji
214-665-3126

Updated: September 2006

Current Status

The EPA is currently working on the second Five-Year Review for the Site. The Five-Year report will determine the protectiveness of the remedy at the Site. The report will be completed by September 30, 2006.

HMC is proposing a construct a new evaporation pond to expand and enhance the water evaporation capacity at the Site to assist in timely ground water site remediation and cleanup activities.

Homestake Mining Company (HMC) continues to operate the ground water extraction/injection system at the former mill site to dewater the large tailings impoundment and clean up ground water contaminated by tailings seepage. Collected ground water is piped to either the Reverse Osmosis (RO) plant for treatment and re-injection into the aquifers or two lined evaporation ponds for disposal. Homestake is also operating a secondary ground water extraction and irrigation system to remediate the down-gradient portion of the contaminant plume. The ground water restoration work is anticipated to continue beyond 2010.
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Benefits

The initial action to connect the nearby residences to the municipal water supply provided a safe drinking water supply. In addition, the study on indoor radon levels showed that site contamination was not contributing to elevated indoor radon levels found in some area homes.
The contaminant plume has receded back almost 3/4 mile into the site boundaries of HMC by injecting fresh water down-gradient of the site. Nearly 4.5 billion gallons of contaminated water have been removed and 540 million gallons of treated water has been injected into the aquifer. The NRC is requiring that the Corrective Action Plan include clean-up of off-site contamination and require that the license be amended accordingly as well.
Reverse gradient injection has assured that contaminants in the ground water would not expand into the shallow aquifer, thus making the shallow water potentially usable in the down gradient areas. Once the tailings piles have been closed, the site will be transferred to DOE under general license.

National Priorities Listing (NPL) History

NPL LISTING HISTORY
Site HRS Score: 35.21
Proposed Date: 12/30/82
Final Date: 9/08/83
NPL Update: Original

Location: 5.5 miles north of Village of Milan in northwest New Mexico.

Population: Approximately 200 people live within a mile of the tailings piles.

Setting:

- Uranium mill
- Two tailings piles: a large pile covering 200 acres and 100 feet in height and a small impoundment covering 40 acres and 25 feet in height.
- Nearest residence is 3,000 feet away.
- Nearest drinking water well is 3,000 feet away.
- Threatened population in four subdivisions located 1/2 to two miles from tailings piles.

Hydrology:

- Tailings located on alluvium, overlying Chinle and San Andreas aquifers.
- Alluvium used as domestic water supply; deeper San Andreas is also an aquifer.
- Extensive injection/withdrawal system has altered shallow ground water flows and flushed alluvial and upper Chinle contamination under the State of New Mexico's Ground Water Discharge Plan (DP-200).

Principal Pollutants:

- Alkaline mill tailings
- Radium-226; 60-100 picocuries/1iter in tailings (soil)
- Selenium: 1,200 parts per billion (ppb) (water)
- Uranium: 720 ppb (water) - Radon: 0.03 Working Level (WL) (air)

Site Map

Human Health and Ecological Considerations

Several hundred people depended upon the shallow aquifer as a water supply; an alternate water supply was provided to nearby residences in 1985 by Homestake under a Consent Decree with EPA.

Seepage from the two tailings piles has contaminated the alluvial aquifer and portions of the Middle Chinle, Upper Chinle and Lower Chinle aquifers. Possible emissions of radon from the tailings piles on HMC's property may have increased the concentration levels of radon in adjacent subdivisions.

Record of Decision

Signed: Consent Agreement in November 1983 (Ground Water)
No Action ROD September 27, 1989 (Radon)

Site Contacts

EPA Remedial Project Manager:	Sai Appaji	214.665.3126 or 800.533.3508
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EPA Community Involvement:	Bob Johnson	214.665 6676 or 800.533.3508
EPA Region 6 Ombudsman	Arnold Ondarza	214.665.6701
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